

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028397**Date Inspected:** 14-Sep-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** S.A.S. Job site**CWI Name:** N / A**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** S.A.S. Structure**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project.

The QAI was tasked with monitoring the welding and repairs being performed by ABF welder Rick Clayborn, ID 2773. The QAI noted that retrofit of longitudinal stiffeners (LS) is continuing in OBG 12W at panel point (pp) 111.1, adjacent to the corner assembly splice welds. The QAI observed welding of the retrofit plate between LS1 and LS2. The QAI noted that the welding is being monitored by the Quality Control Inspector (QCI) Pat Swain. The QAI noted that there are 2 vertical fillet welds (3F) remaining to be made at this location. The QAI noted that welding procedure specification (WPS) ABF-WPS-D15-F1200A is being utilized with an elevated preheat temperature due to the LS being grade 485W. The QAI noted that during the welding, the preheat and interpass temperatures were maintained and the welding parameters were within the ranges listed on the WPS. Upon completion of the welding, the QAI noted that the welds appeared to be visually conforming to the contract requirements but the final inspection will not be completed until the required cooling time is achieved. Reference the attached photo.

The QAI was informed that repairs of Deck Access Hole (DAH) LS-West, at pp124.5, line W5, will be repaired. The QAI observed the excavation of the weld to be 95mm long, 20mm deep and 30mm wide. The QAI noted that the excavation was examined using Magnetic Particle Testing (MT) by the QCI Pat Swain. The QAI was informed that the vertical groove (3G) complete joint penetration (CJP) repair is in grade 485W steel and will utilize ABF-WPS-D15-1002-Repair. The QAI observed that during the welding, the preheat and interpass temperatures were maintained and the welding parameters were within the ranges listed on the WPS. The QAI

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noted that the welding was monitored by the QCI Pat Swain.

Upon completion of the LS-West repair, the welder went back to 12W, pp111.1 and fit up the remaining retrofit plate between LS-2 and LS-3. The QAI was informed that the welding will not be performed during this shift. The QAI was informed that the DAH weld at pp124.5 W5 will begin repairs. The QAI noted that this weld is designated as SPCM. The QAI witnessed the excavation of 3 portions of the DAH weld that have been identified by QCI examination as rejectable. The repair locations are Y=125mm, Y=1685mm and Y=4150mm. The QAI noted that the lengths of rejected weld and the depth of the weld excavations do not require a critical weld repair at this time. Upon completion of the excavations, the depth and length of the excavations are: Y=125:18mm W:10mm D:115mm L; Y=1685: 18mm W: 10mm D: 110mm L; Y=4150: 35mm W: 10mm D: 140mm L. The QAI noted that all 3 off these excavations were made from the bottom (face B) of the DAH weld. The QAI noted that the excavations were examined with MT by the QCI Pat Swain. The QAI also noted that the weld was preheated to 225F prior to carbon arc gouging the excavations. Upon completion of this work, the QAI was informed that there isn't enough time remaining in the work shift to perform the weld repairs and no additional work will be performed. See the attached photo.



Summary of Conversations:

The QAI relayed the observation of the welding and repairs to the QAI Danny Reyes and the QAI Lead Bill Levell.

Except as described above, there were no other notable conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas, (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Croff, Scott	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
